

## **REMARKS**

In the Office Action mailed October 22, 2008 the Examiner noted that claims 1-13 were pending, and rejected claims 1-13. Claims 1, 6-10 and 13 have been amended, and, thus, in view of the forgoing claims 1-13 remain pending for reconsideration which is requested. No new matter has been added. The Examiner's rejections are traversed below.

The prior Office Action rejects all claims under 35 U.S.C. § 103 over Choquier and Donaghue. On page 7 of the prior Office Action the Examiner acknowledges that Choquier does not teach servers "grouped depending on quality levels of rendered services into high, low and intermediate service groups" and looks to Donaghue for this feature.

Claim 1 emphasizes that the servers are divided into groups based on service levels ("dividing the service servers to define a plurality of groups of service servers depending on quality levels of rendered services") and that the servers are reassigned or shifted from an intermediate server group as the load increases and the service level of the group cannot be maintained ("dynamically shift service servers among the plurality of groups" and "reducing a load on a service server within any of the plurality of groups by using at least one service server with the lightest load within the intermediate server group as the service server within any of the plurality of groups, when the load on the service server within any of the plurality of groups increases, and a quality level to be rendered by any of the plurality of groups cannot be maintained").

In contrast to a system as in claim 1 that is server service level assignment driven (assigns servers into groups based on service levels of the system), Donaghue discusses a system that is server availability driven where when a transaction arrives the transaction is given a priority level and then any server that is available can be assigned that transaction to process it. As particularly stated by Donaghue:

In contrast to conventional transaction processing systems that attempt to assign each newly-arrived transaction to a server, the facility of the present invention assigns each newly-available server to a transaction. Such assignment takes place each time a server becomes available, either when an existing server completes the processing of the last transaction that it was assigned to process, or when a new server arrives. The assignment process involves "offering" use of the server for use by each priority level of applications in sequence, from the highest priority level to the lowest priority level, until a priority level accepts use of the server. To determine whether to accept the offered server, each priority level in turn offers the server to each application of that priority level, until an application accepts use of the server. If any application at that priority level accepts use of the server, then the priority level accepts the use of the server. On the other hand, if none of the applications at that priority level accepts use of the server, then the priority level declines the use of the server, and the facility offers use of the server to the next lower priority level. By offering each available server in accordance with the priority levels, the facility ensures that at least applications

in the highest priority levels will successfully reach their service level goals. Where adequate numbers of servers are available, however, the facility permits applications in all priority levels to reach their service level goals.

(See Donaghue col. 3, lines 26-52)

FIG. 3 is a conceptual diagram showing the facility's approach to assigning available servers to the priority levels identified in FIG. 2. In FIG. 3, when each arriving server 301 becomes available to the facility, the facility offers the arriving server to one priority level after another until one of the priority levels accepts the offered server. The facility begins by offering the server to the highest priority level, that is, the priority level having the smallest number. In the example, highest priority level is 1. Priority level 1 (311) determines whether the offered server is needed to meet the service level goal of any of its applications. If so, priority level 1 accepts the offered server, and assigns it to one of its applications (discussed in greater detail below), which uses it to process an arriving transaction. After such processing is complete, the application outputs the completed transaction, and releases the server. At this point, the server may join the departing servers 302 that are no longer available to process transactions, or may follow route 303 to reenter the facility as an arriving server.

(See Donaghue, col. 8, lines 45-63)

This approach of assigning available servers to transactions is very different from assigning servers to quality levels groups.

As noted above, Choquier is acknowledged by the Examiner not to group servers into service levels. And, as set forth in the discussion in Donaghue above, Donaghue also does not assign servers to groups but to transactions. For this reason, it is submitted that claim 1 distinguishes over the prior art.

As noted above, when a server in Donaghue finishes processing a transaction it is returned to the "availability" pool so that it can be assigned to another transaction. Thus, the next transaction that it processes may be a high, low or any other priority level.

In contrast, when the increased load on the group of servers to which an intermediate server has been assigned "decreases", the shifted or temporarily assigned server returns to the intermediate group for performing low level processing ("the service server of the intermediate server group returns to a low level when the load on the service server within any of the plurality of groups decreases" - claim 1). Donaghue does not teach or suggest such. Nor does Choquier.

Claims 6-10 and 13 also emphasize assignment of servers to service level groups and the assignment of an intermediate group server to one of the levels where the service level is not being maintained and then the reassignment to the intermediate level when the load decreases.

It is submitted that the independent claims distinguish over the prior art and withdrawal of the rejection is requested.

It is submitted that the claims are not taught, disclosed or suggested by the prior art. The claims are therefore in a condition suitable for allowance. An early Notice of Allowance is requested.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.

Respectfully submitted,

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Date: April 10, 2008

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